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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/720,894

11/24/2003

Deepak M. Srinivasa

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EXAMINER

LIU, LIN

ART UNIT

PAPER NUMBER

2145

MAIL DATE

DELIVERY MODE

05/01/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/720,894	Applicant(s) SRINIVASA, DEEPAK M.	
	Examiner LIN LIU	Art Unit 2145	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 15-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 15-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is responsive to communications filed on 02/21/2008.

Claims 1-10 and 15-23 are pending and have been examined.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Applicant's submission filed on 02/21/2008 has been entered.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

4. Claims **1-10 and 15-23** are rejected under 35 U.S.C. 102(a) as being anticipated by **Hadad et al. ("Temporal Reasoning for a Collaborative Planning Agent in a Dynamic Environment")**.

With respect to **claim 1**, Hadad teaches a method in a computer system for assessing the relative complexity of different options for performing a task by the computer system, the method comprising the steps of:

storing programming instructions on a storage medium of the computer system (Hadad: pages 2-3, the Cooperative intelligent agents);

executing the instructions by the computer system, wherein the executing causes the computer system (Hadad: pages 2-3, the Cooperative intelligent agents) to implement a method comprising the steps of:

defining the task as a sequenced set data structure that specifies actions of the task, and sequence information that specifies the order in which particular actions are to be performed (Hadad: pages 9-10 & 15, noted the set of actions);

storing recipes available for performing constituent actions of the task as sequenced set data structures that specify subactions of the recipes for the constituent actions, and sequence information that specifies the order in which the subactions are to be performed (Hadad: pages 9-11, noted the recipes to perform subactions.);

determining complexity measures associated with performing the task using different combinations of recipes for constituent actions of the task, based upon complexity measures of actions specified by respective combinations of available recipes (Hadad: pages 10-11 & 16, noted the complex levels of the action); and

presenting a report of the complexity measures associated with performing the task (Hadad: page 4, paragraph 1).

With respect to **claim 2**, Hadad teaches the method as claimed in claim 1, wherein complexity measures for actions are defined in terms of the complexity measures of available recipes for performing the actions, and complexity measures for recipes are defined in terms of the complexity of the subactions of the recipe (Hadad: pages 10 & 12).

With respect to **claim 3**, Hadad teaches the method as claimed in claim 1, further comprising the steps of:

determining predetermined complexity measures for basic actions that are not specified by a recipe (Hadad: pages 3-4); and

determining specified complexity measures for contracted actions that are performed by a different agent (Hadad: pages 10-11).

With respect to **claim 4**, Hadad teaches the method as claimed in claim 1, further comprising the alternating steps of:

updating complexity measures for recipes in relation to actions whose complexity measures are determined (Hadad: fig. 6 and page 20); and

updating complexity measures for actions in relation to recipes whose complexity measures are updated (Hadad: fig. 6 and page 20).

With respect to **claim 5**, Hadad teaches the method as claimed in claim 1, wherein the complexity measures associated with a particular action performed by a particular agent is based upon the complexity measures for each of the recipes for that action (Hadad: page 10).

With respect to **claim 6**, Hadad teaches method as claimed in claim 1, wherein the sequence information that specifies the order in which particular

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actions are to be performed specifies, for pairs of actions, that one specified action is sequenced before another specified action (Hadad: fig. 2-3, and pages 10-11).

With respect to **claim 7**, Hadad teaches the method as claimed in claim 1, further comprising the step of defining a sequenced set data structure as $S = (A, M)$, ha which A is a multi-set element and M is a sequenced relation that specifies an ordered sequence of the elements A in the sequenced set S (Hadad: page 12).

With respect to **claim 8**, Hadad teaches the method as claimed in claim 7, further comprising the step of defining a sequencing relation for the sequenced set data structure S for two elements a_i and a_j of multi-set element A, such that a_i is sequenced before a_j in set A under the relation M (Hadad: page 12).

With respect to **claim 9**, Hadad teaches method as claimed in claim 1, further comprising the step of delegating the defined task to a primary agent for execution of the task by at least one of the primary agent and one or more contracting agents (Hadad: pages 3-4 & 16).

With respect to **claim 10**, Hadad teaches the method as claimed in claim 1, wherein a plurality of series of actions exist for performing the defined task, each of the series of actions having a corresponding complexity (Hadad: page 10), and the method further comprises the step of: performing the defined task by executing a selected one of the series of actions, wherein the complexity of the selected series of tasks is less than the complexities of the other series of tasks of the plurality of series of tasks (Hadad: pages 12 & 15-16).

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In regard to **claims 15-23**, the limitations of these claims are substantially the same as those in claims 1-10. Therefore the same rationale for rejecting claims 1-10 is used to reject claims 15-23. By this rationale **claims 15-23** are rejected.

Response to Arguments

5. Applicant's arguments with respect to claims 1-10 and 15-23 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lin Liu whose telephone number is (571) 270-1447. The examiner can normally be reached on Monday - Friday, 7:30am - 5:00pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Cardone can be reached on (571) 272-3933. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair->

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direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/L. L./

/Lin Liu/

Examiner, Art Unit 2145

/Jason D Cardone/
Supervisory Patent Examiner, Art Unit 2145